## **ABSTRACT**

A method and apparatus are disclosed for detecting a collision in a carrier sense multiple access wireless communication system. Each transmitting station includes a collision detector that evaluates one or more predefined criteria to determine when a collision has occurred. The collision detector evaluates the measured energy level and optionally payload and/or preamble detection information to determine if a collision has occurred. A collision occurred when an expected ACK message is not received, in the presence of an increased energy level and possibly preamble or payload detection information. The collision detector of the present invention can be activated, for example, at a time corresponding to the start of the 802.11 Short Inter Frame Space interval.

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